IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): An onboard fuel cell system comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which is able to generate electric power using the hydrogen gas and the oxidative gas, and which is able to discharge hydrogen-off gas and oxygen-off gas that have been consumed;

a first flow passage which leads to a hydrogen-off gas exhaust port of the fuel cell and through which the discharged hydrogen-off gas can flow;

a second flow passage which leads to an oxygen-off gas exhaust port of the fuel cell and through which the discharged oxygen-off gas can flow;

a mixing portion which is connected to receive the discharged hydrogen-off gas and the discharged oxygen-off gas from the first and second flow passages respectively and in which the oxygen-off gas may be mixed with the hydrogen-off gas;

a third flow passage which leads to the mixing portion and through which the mixed gases can flow so that the hydrogen-off gas may be discharged to the atmosphere; and

a valve which is disposed in the first flow passage and which may be opened or closed so that the hydrogen-off gas is allowed to flow into or is blocked from flowing into the mixing portion.

Claim 2 (Previously Presented): The onboard fuel cell system according to claim 1, wherein

the mixing portion comprises an oxygen-off gas-introducing branch flow passage which branches off from the second flow passage to introduce the oxygen-off gas from the second flow passage in a shunted manner and a mixing chamber to which the oxygen-off gas-introducing branch flow passage and the first flow passage lead and in which the hydrogen-

off gas and the oxygen-off gas may be mixed with each other and which has such an enlarged volume that the mixed gases can flow into the third flow passage, and

the second flow passage merges with the third flow passage downstream of a location where the second flow passage branches off from the oxygen-off gas-introducing branch flow passage.

Claim 3 (Original): The onboard fuel cell system according to claim 2, wherein

a pressure-loss member for causing a pressure loss of a fluid flowing through the second flow passage is disposed in the second flow passage between the location where the second flow passage branches off from the oxygen-off gas-introducing branch flow passage and a location where the second flow passage merges with the third flow passage.

Claim 4 (Original): The onboard fuel cell system according to claim 3, wherein

the pressure-loss member is a muffler.

Claim 5 (Cancelled).

Claim 6 (Previously Presented): An onboard fuel cell system comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which is able to generate electric power using the hydrogen gas and the oxidative gas, and which is able to discharge hydrogen-off gas and oxygen-off gas that have been consumed;

a first flow passage which leads to a hydrogen-off gas exhaust port of the fuel cell and through which the discharged hydrogen-off gas can flow;

a second flow passage which leads to an oxygen-off gas exhaust port of the fuel cell and through which the discharged oxygen-off gas can flow;

a third flow passage which leads to the mixing portion and through which the mixed gases can flow so that the hydrogen-off gas may be discharged to the atmosphere;

a gas-liquid separator connected to receive gases from the first flow passage and the second flow passage and which can remove the liquid contents from said gases; and

a catalytic reaction portion connected to receive gases from the gas-liquid separator and which is able to cause hydrogen and oxygen from the first flow passage and the second flow passage to react with each other with the aid of a catalyst, thereby reducing the concentration of hydrogen in the gases.

Claim 7 (Cancelled).

Claim 8 (Previously Presented): The onboard fuel cell system according to claim 1, further comprising:

a hydrogen gas-supplying source for supplying hydrogen gas;

a fourth flow passage which leads to a hydrogen gas-supplying port of the fuel cell and through which the supplied hydrogen gas can flow; and

a fifth flow passage which connects a first location in the first flow passage between the exhaust port of the fuel cell and the valve with a second location in the fourth flow passage and through which the hydrogen-off gas discharged from the fuel cell can flow to be returned to the fourth flow passage.

Claim 9 (Original): The onboard fuel cell system according to claim 8, wherein

the hydrogen gas-supplying source contains a hydrogen gas-occluding alloy capable of occluding and discharging the hydrogen gas.

Claim 10 (Previously Presented): The onboard fuel cell system according to claim 9, further comprising:

a pump which is disposed in the fifth flow passage and by which the hydrogen-off gas discharged from the fuel cell may be discharged to the fourth flow passage; and

a sixth flow passage through which hydrogen gas can flow from the hydrogen gas-occluding alloy to the pump,

wherein hydrogen gas delivered from the hydrogen gas-occluding alloy is supplied to the fuel cell via the pump if the hydrogen gas-occluding alloy is at a low temperature.

Claim 11 (Previously Presented): The onboard fuel cell system according to claim 1, further comprising:

a seventh flow passage which leads to an oxidative gas-supplying port of the fuel cell and through which the supplied oxidative gas can flow;

a flow rate-changing portion which is disposed in the second flow passage or the seventh flow passage and which can change the flow rate of the discharged oxygen-off gas; and

a control portion adapted to control the valve and the flow rate-changing portion,

wherein the control portion can increase the flow rate of the discharged oxygen-off gas from a predetermined flow rate by means of the flow rate-changing portion when opening the valve.

Claim 12 (Previously Presented): The onboard fuel cell system according to claim 1, further comprising:

a seventh flow passage which leads to an oxidative gas-supplying port of the fuel cell and through which the supplied oxidative gas can flow;

a flow rate-changing portion which is disposed in the second flow passage or the seventh flow passage and which can change the flow rate of the discharged oxygen-off gas; and

a control portion which controls the valve and the flow rate-changing portion,

wherein the control portion opens the valve by means of the flow rate-changing portion if the flow rate of the discharged oxygen-off gas is higher than a predetermined flow rate.

Claim 13 (Previously Presented): The onboard fuel cell system according to claim 1, further comprising:

a control portion adapted to control the valve,

wherein the control portion opens and closes the valve at intervals of a relatively short period when delivering the discharged oxygen-off gas to the mixing portion.

Claim 14 (Previously Presented): The onboard fuel cell system according to claim 1, further comprising:

a flow rate-reducing portion which is disposed in the first flow passage between the valve and the mixing portion, which is able to reduce the flow rate of the hydrogen-off gas flowing from the valve, and which is able to deliver the hydrogen-off gas to the mixing portion.

Claim 15 (Previously Presented): The onboard fuel cell system according to claim 1, further comprising:

a control portion adapted to control the valve,

wherein the control portion opens the valve if the concentration of hydrogen in the discharged hydrogen-off gas drops below a reference concentration.

Claim 16 (Original): The onboard fuel cell system according to claim 1, wherein a diffusion member for diffusing gas flowing out from an end opening of the third flow passage in the radial direction of the opening is disposed at the end of the third flow passage.

Claim 17 (Original): The onboard fuel cell system according to claim 16, wherein a shield member is disposed at the end of the third flow passage in such a manner as to cover the end while being spaced therefrom by a predetermined distance, and the shield member has at least one pore whose diameter is equal to or greater than a predetermined diameter.

Claim 18 (Original): The onboard fuel cell system according to claim 17, wherein the shield member is either meshed or punched porously.

Claim 19 (Previously Presented): An onboard fuel cell system comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which can generate electric power using the hydrogen gas and the oxidative gas, and which can discharge hydrogen-off gas and oxygen-off gas that have been consumed;

a first flow passage which leads to a hydrogen-off gas exhaust port of the fuel cell and through which the discharged hydrogen-off gas can flow;

a second flow passage which leads to an oxygen-off gas exhaust port of the fuel cell and through which the discharged oxygen-off gas can flow;

a mixing portion which is connected to receive the discharged hydrogen-off gas and the discharged oxygen-off gas from the first and second flow passages respectively and in which the oxygen-off gas may be mixed with the hydrogen-off gas;

a third flow passage which leads to the mixing portion and through which the mixed gases can flow so that the hydrogen-off gas may be discharged to the atmosphere;

a fourth flow passage which leads to an oxidative gas-supplying port of the fuel cell and through which the supplied oxidative gas can flow;

a gas-liquid separator which is disposed in the second flow passage and in which liquid contents may be separated from the discharged oxygen-off gas; and

a fifth flow passage which leads to the gas-liquid separator and through which the liquid separated by the gas-liquid separator may be supplied to the fourth flow passage.

Claim 20 (Previously Presented): The onboard fuel cell system according to claim 1, further comprising:

a fourth flow passage which leads to an oxidative gas-supplying port of the fuel cell and through which the supplied oxidative gas can flow; and

a water-vapor exchanger in which water vapor can be exchanged between oxygen gas supplied to the fuel cell via the fourth flow passage and oxygen-off gas discharged from the oxidative gas exhaust port of the fuel cell via the second flow passage.

Claim 21 (Previously Presented): An onboard fuel cell system for a vehicle, comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which is able to generate electric power using the hydrogen gas and the oxidative gas, and which is able to discharge hydrogen-off gas and oxygen-off gas that have been consumed;

an exhaust flow passage through which the hydrogen-off gas discharged from the fuel cell or a gas containing the hydrogen-off gas may be discharged to the atmosphere;

a diffusion member which is disposed at an end of the exhaust flow passage and which can diffuse a gas flowing out from an opening at the end of the exhaust flow passage in the radial direction of the opening; and

a valve which is disposed in the exhaust flow passage and which may be opened or closed to respectively allow or prohibit the hydrogen-off gas, or a gas containing the hydrogen-off gas, to flow to the atmosphere.

Claim 22 (Original): The onboard fuel cell system according to claim 21, wherein a shield member is disposed at the end of the exhaust flow passage in such a manner as to cover the end while being spaced therefrom by a predetermined distance, and the shield member has at least one pore whose diameter is equal to or greater than a predetermined diameter.

Claim 23 (Original): The onboard fuel cell system according to claim 22, wherein the shield member is either meshed or punched porously.

Claims 24-30 (Cancelled).

Claim 31 (Previously Presented): The onboard fuel cell system according to claim 6, further comprising a mixing portion which is connected to receive the discharged hydrogen-off gas and the discharged oxygen-off gas from the first and second flow passages respectively, which can mix the oxygen-off gas with the hydrogen-off gas and which is further connected to discharge the mixed gas to the gas-liquid separator.

Claim 32 (Previously Presented): The onboard fuel cell system according to claim 1, wherein said mixing portion has larger diameter than that of said first and second flow passages.

Claim 33 (Previously Presented): The onboard fuel cell system according to claim 32, wherein said mixing portion has larger volume per unit length than said first and second flow passages.

Claim 34 (Previously Presented): The onboard fuel cell system according to claim 32, wherein said mixing portion has a zig-zag shape through which the mixed gases can flow.

Claim 35 (Previously Presented): The onboard fuel cell system according to claim 32, wherein said mixing portion has a shield plate which partitions the mixing portion to provide said zig-zag shape.

Claim 36 (Previously Presented): The onboard fuel cell system according to claim 32, further comprising a catalyst in said mixing portion.

Claim 37 (Previously Presented): The fuel cell system according to claim 14, wherein the flow-rate reducing portion has an inlet port and an outlet port, wherein a diameter of the outlet port is smaller than that of the inlet port.

Claim 38 (Previously Presented): The fuel cell system according to claim 37, wherein a portion of the flow reducing portion between the inlet port and the outlet port has a volume per unit length greater than that of the inlet port or the outlet port.

Claim 39 (Previously Presented): The fuel cell system according to claim 37, wherein the flow reducing portion has a variable volume.

Claim 40 (Previously Presented): The fuel cell system according to claim 21, wherein said diffusion member is disposed on a side of a body of the vehicle having the fuel cell system.

Claim 41 (Previously Presented): The fuel cell system according to claim 21, wherein a diameter of an exhaust port of the exhaust gas flow passage is gradually enlarged in a flow direction of the exhaust gas, and wherein the diffusion member is in the shape of a cone or truncated cone.

Claim 42. (Previously Presented): An onboard fuel cell system comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which is able to generate electric power using the hydrogen gas and the oxidative gas, and which is able to discharge hydrogen-off gas and oxygen-off gas that have been consumed;

a first flow passage which leads to a hydrogen-off gas exhaust port of the fuel cell and through which the discharged hydrogen-off gas can flow;

a second flow passage which leads to an oxygen-off gas exhaust port of the fuel cell and through which the discharged oxygen-off gas can flow;

a mixing portion which is connected to receive the discharged hydrogen-off gas and the discharged oxygen-off gas from the first and second flow passages respectively and in which the oxygen-off gas may be mixed with the hydrogen-off gas;

a third flow passage which leads to the mixing portion and through which the mixed gases can flow so that the hydrogen-off gas may be discharged to the atmosphere,

wherein said mixing portion has larger diameter than that of said first and second flow passages.

Claim 43 (Previously Presented): An onboard fuel cell system comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which is able to generate electric power using the hydrogen gas and the oxidative gas, and which is able to discharge hydrogen-off gas and oxygen-off gas that have been consumed;

a first flow passage which leads to a hydrogen-off gas exhaust port of the fuel cell and through which the discharged hydrogen-off gas can flow;

a second flow passage which leads to an oxygen-off gas exhaust port of the fuel cell and through which the discharged oxygen-off gas can flow;

a mixing portion which is connected to receive the discharged hydrogen-off gas and the discharged oxygen-off gas from the first and second flow passages respectively and in which the oxygen-off gas may be mixed with the hydrogen-off gas;

a third flow passage which leads to the mixing portion and through which the mixed gases can flow so that the hydrogen-off gas may be discharged to the atmosphere; and

a flow rate-reducing portion which is disposed in the first flow passage, wherein the flow-rate reducing portion has an inlet port and an outlet port, and wherein a diameter of the outlet port is smaller than that of the inlet port.

Claim 44 (Previously Presented): An onboard fuel cell system for a vehicle, comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which is able to generate electric power using the hydrogen gas and the oxidative gas, and which is able to discharge hydrogen-off gas and oxygen-off gas that have been consumed;

an exhaust flow passage through which the hydrogen-off gas discharged from the fuel cell or a gas containing the hydrogen-off gas may be discharged to the atmosphere;

a diffusion member which is disposed at an end of the exhaust flow passage and which can diffuse a gas flowing out from an opening at the end of the exhaust flow passage,

wherein said diffusion member is disposed at a portion of a body of the vehicle having the fuel cell system.

Claim 45. (Previously Presented) The fuel cell system according to claim 44, wherein the portion of the body of the vehicle is a bumper of the vehicle.

Claim 46 (New). The onboard fuel cell system according to claim 1, further comprising:

a hydrogen gas-supplying source which supplies hydrogen gas;

a fourth flow passage which leads to a hydrogen gas-supplying port of the fuel cell and through which the supplied hydrogen gas flows;

a fifth flow passage which branches off from the fourth flow passage and discharges the hydrogen gas flowing in the fourth flow passage to the atmosphere via a relief valve; and

a mixing portion which is disposed downstream of the relief valve in the fifth flow passage, and which leads to the second flow passage and which mixes the oxygen-off gas with the hydrogen-off gas.

Claim 47 (New). The onboard fuel cell system according to claim 1, further comprising:

a hydrogen gas-supplying source which supplies hydrogen gas;

a fourth flow passage which leads to a hydrogen gas-supplying port of the fuel cell and through which the supplied hydrogen gas flows;

a fifth flow passage which branches off from the fourth flow passage and discharges the hydrogen gas flowing in the fourth flow passage to the atmosphere via a relief valve; and

a hydrogen diluter which is disposed downstream of the relief valve in the fifth flow passage, and which reduces the concentration of the hydrogen.

Claim 48 (New). The onboard fuel system according to claim 47, wherein catalyst is provided in the hydrogen diluter.

Claim 49 (New). The onboard fuel cell system according to claim 1, further comprising:

a hydrogen gas-supplying source which supplies hydrogen gas;

a fourth flow passage which leads to a hydrogen gas-supplying port of the fuel cell and through which the supplied hydrogen gas flows;

a fifth flow passage which branches off from the fourth flow passage and discharges the hydrogen gas flowing in the fourth flow passage to the atmosphere via a relief valve; and

a catalyst reaction portion which is disposed downstream of the relief valve in the fifth flow passage, which causes hydrogen gas with oxygen to react with each other with the aid of a catalyst, and which reduces the concentration of hydrogen.

Claim 50 (New). An onboard fuel cell system comprising:

a fuel cell which may be supplied with hydrogen gas and oxidative gas, which is able to generate electric power using the hydrogen gas and the oxidative gas, and which is able to discharge hydrogen-off gas and oxygen-off gas that have been consumed;

a first flow passage which leads to a hydrogen-off gas exhaust port of the fuel cell and through which the discharged hydrogen-off gas can flow;

a second flow passage which leads to an oxygen-off gas exhaust port of the fuel cell and through which the discharged oxygen-off gas can flow;

a mixing portion which is connected to receive the discharged hydrogen-off gas and the discharged oxygen-off gas from the first and second flow passages respectively and in which the oxygen-off gas may be mixed with the hydrogen-off gas;

a third flow passage which leads to the mixing portion and through which the mixed gases can flow so that the hydrogen-off gas may be discharged to the atmosphere; and

a relief valve which is disposed in the first flow passage and which allows the hydrogen-off gas to flow into the mixing portion.